

5500 V Poly+Urea

Description: High Solids Aliphatic “Vertical” Roll-Down Clear Polyurea Coating Specifically Formulated For Vertical Applications

5500 is an 98% solids, two component, Aliphatic MDI and multifunctional blend formulated in Polyurea/Aspartic as a moderate set time “Vertical” application product. This ALIPHATIC POLYUREA will maintain color stability.

The polymer structure is very clear and may be pigmented, is non-yellowing, very tough, excellent color retention, good chemical resistance with excellent adhesive properties. 5500 V is a reactive two component system highly resistant to staining and marking.

The 5500 systems are "roll-down" Polyurea/Aspartic products that are a clear finish coat with good elongation and flexibility. The 5500 systems do not become brittle as other aspartic products and are completely Aliphatic or UV resistant with excellent color stability. The 5500 aliphatic products systems conforms to the requirements of the USDA for incidental food contact and are formulated to be non-color changing, abrasive resistant, non-brittle, flexible, quick set with impact resistance.

Unique Characteristics:

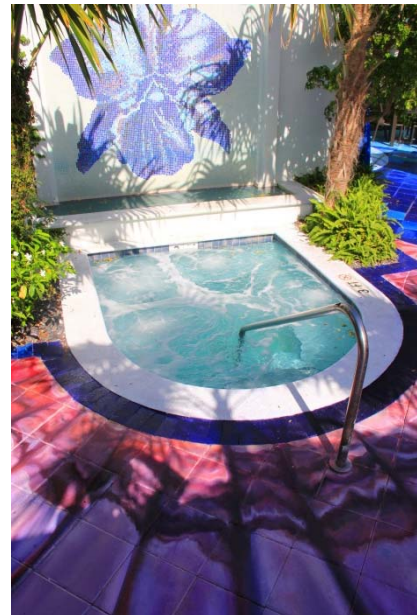
5500 V is a unique Aliphatic Vertical Polyurea/Aspartic that has extended working time allowing for easier applications in areas where the faster version would not be appropriate or would set too quickly.

Advantages

- SAME 5500 PHYSICAL PROPERTIES BUT FOR “VERTICAL” APPLICATIONS
- ALIPHATIC POLYUREA/ASPARTIC DOES NOT CHALK OR YELLOW – UV RESISTANT
- CURES TO A VERY CLEAR FINISH AND CAN BE PIGMENTED
- EXCELLENT UV RESISTANCE
- SETS QUICKLY
- GOOD WORKING TIME
- CHEMICAL RESISTANT
- EXCELLENT ABRASIVE RESISTANCE
- HIGHLY ADHESIVE
- GOOD ELONGATION
- FAST “TURN-AROUND” APPLICATIONS

USES

- ❖ Clear or Pigmented, the 5500 meets USDA requirements for food processing & packaging production areas
- ❖ Used on vertical walls and facility structures, concrete walls and other substrates when properly prepared
- ❖ Interior or exterior applications



General Physical Characteristics

| | |
|--------------------------------|---------------------------------|
| Solids | 98% |
| Shelf Life | 1 year |
| Potlife @ 70F | >25 minutes |
| Hardness ASTM D2240, | Shore A 85 & 50D |
| Mix Ratio | 1:1 |
| Tack Free ASTM D2471 | 1.5-2 hrs. |
| Tensile ASTM D412 | >4000 psi |
| Tear Strength D470 | 850lbs./in. |
| Abrasion (CS17) ASTMD4060-90 | 4.0mg/1000/500 cycles |
| Gel Time (surface applied) | >30 min @ 75°F |
| Permeability ASTM E96(WVT) | 0.053grms/hr/sqft |
| Elongation ASTM D124 | 120% |
| Processing Temperature | 70°F |
| Viscosity@ 25°C cps, | 450+/-50 |
| UV Resistance | High |
| Compressive Strength; 8 hrs. – | 7300 psi, 24 hrs. – 11,200 psi, |
| 7 day – 14,100 to 19,000 psi | |

Chemical Resistance 5500 Systems

| Chemical | 24 hrs. | 7 days |
|----------------------------|---------|-------------------|
| 10% Acetic Acid | + | - yellowing |
| 100% Ethanol 200 proof | + | + |
| 50% Sulfuric Acid | + | + |
| 38% Hydrochloric Acid | + | + |
| 10% NaCl | + | + |
| 28% Ammonia | + | + |
| 85% Lactic Acid | + | - down gloss |
| 5% to 10% Clorox Bleach | + | + |
| Citrus Cleaning Solvent | + | - slight blisters |
| Skydrol PE-5 | + | + |
| Power Steering Fluid | + | + |
| Transmission Fluid Dextron | + | + |
| Motor Oil | + | + |
| Brake Fluid | + | - slight blisters |
| Unleaded Gasoline | + | + |
| Mek | - | - |
| Xylene | - | - |
| Tap Water | + | + |
| Coffee | + | + |
| Cola | + | + |
| Grape Juice | + | + |
| Ketchup | + | + |
| Mustard | - | - transient |
| yellowing | | |

+ Positive results, - Negative results

Preparation:

Concrete must have a minimum 28 day cure prior to application. Remove any curing agent, form release materials, oils, wax, moisture or any material that may affect bonding. Clean and wash to remove contaminants and maintain pH 8.0-11.0. **Provide rough profile minimum 2 mils. Review ASTM D4259

“Abrading Concrete” and ASTM F1869 Measuring Moisture Vapor Emission. Note: High Tensile, see 5500 EX data sheet.

Priming:

5500 is self-priming. Certain substrate surfaces may be primed using ASTC’s PenPrime single component primer.

Mixing:

Use a jiffy mixer and 650 rpm drill motor to mix product. Mix at slow speed adding part B into part A while mixing. Do not change the proportions. Mix completely for approximately one minute. Avoid mixing air into the blend. Mix at 1:1 ratio in a separate clean pail, pour out to application pan and apply using a roller suitable for the viscosity of the product.

Adding Pigment:

Use 14 to 16 ounces of pigment per Mixed Gallon of 5500 V. Pigment is provided by ASTC. Do not use other pigments as they are not formulated with the proper base materials that are compatible with the 5500 products. Do not overload the 5500 with pigment, use the minimum amount of pigment for the desired effect. **Always test first before making the actual application.

Colors:

Tan, Wheat/Straw, Pearl Gray, Mist Gray, Medium Gray, and Black. White is also available for adding to the above colors as desired.

Application:

Application range; 45°F to 90°F. Apply the product using a notched squeegee or similar squeegee to move the product over the application area. *Hot surfaces may accelerate gel time of the product. *High Humidity will accelerate the gel time of the 5500 product systems. Product should be back-rolled using a short nap roller, about ¼” to 3/8”. **Apply in thin films from 5,8 or 10 mils per coat.

Do not apply thicker than 10-12 mils at one time. Recoat Time; apply a second coat as soon as the first coat can be walked on, 1 to 2 hours. If recoat window is exceeded, sand lightly to produce a profile, wipe with acetone and re-coat.

Curing Time:

Approximately 1.5 to four hours for low foot traffic volume. Cure 5 to 8 hours for heavier foot traffic. Test surface cure to be sure surface is ready for vehicles before allowing access. *Cure is affected by environmental conditions & high humidity. Do not use 5500 V in environments that are hot with high humidity without test the application/product in a small area within the environment where it will be used.*



Limitations:

Note:

If moisture vapor drive is evident or efflorescence is visible use a vapor barrier CMW. Use compatible surface repair products with 5500. Pot life is effected by environmental temperatures and humidity. Do not use on wet surfaces or expose part A to moisture. Keep out of direct sunlight and store the product kits on wood pallets at room temperature. Use a Nitrogen blanket over unused product for proper storage and protection from humidity.

This product is for use by professional applicators only. Wear Protective Clothing and gloves as the product bonds very well to fabrics. Read MSDS before using this product. DOT/Flash Point – Non-flammable Liquid Classification, not regulated. Warranty: See ASTC Polymers, Inc. Warranty data sheet. (2-13) Product data sheets subject to change without notice. © 2013 ASTC Polymers, Inc .